

Notice of Allowability

Application No.

10/820,522

Examiner

Zoila E. Cabrera

Applicant(s)

ARVIN, JOSEPH L.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/27/07.
2. ☒ The allowed claim(s) is/are 7-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 7-18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The allowability of the claims resides, at least in part, that the closest prior art of record (Pennisi et al. US 5,659,478) does not disclose or suggest, alone or in combination, the steps of:

Regarding independent claim 7, **said third computer program adapted to operate said indexable chuck and a robotic work arm; mounting a first selected machining tool on said robotic work arm; using said third computer program to operate said work arm to bring said first machining tool into contact with a first selected portion of said gear contours; conducting a first machining operation upon said first gear contour portion; operating said indexable chuck to bring a second selected portion of said gear contour into position to be machined; using said third computer program to operate said work arm to bring said first machining tool into contact with said second selected portion of said gear contours; conducting said first machining operation upon said second gear contour portion; and continuing to reindex and machine said gear until all contours desired to be machined have been machined**, in combination with the other elements and features of the claimed invention.

As for independent claim 11, **repeating said prototype manufacture and inspection steps until a final of said prototype gears meets desired gear**

specifications; using a third computer program to generate a computer model of the contours of said final prototype gear, said third computer program adapted to operate an indexable chuck and a robotic work arm; using said gear-cutting machine parameters to cut a production gear; mounting said production gear to said rotatable, indexable chuck; mounting a selected machining tool on said robotic work arm; using said third computer program to operate said robotic work arm to bring said machining tool into contact with a first selected portion of the contours of said production gear; carrying out a first machining operation upon said first production gear contour portion; operating said indexable chuck to bring a second selected portion of said production gear contour into position to be machined; using said third computer program to operate said work arm to bring said machining tool into contact with said second selected portion of said production gear contours; carrying out said first machining operation upon said second selected production gear contour portion; and continuing to reindex and machine said production gear until all contours desired to be machined have been machined, in combination with the other elements and features of the claimed invention.

As for independent claim 14, second computer program to transform said measurements into a second data set; a robotically-controlled machining arm, said arm adapted to receive and operate a multiplicity of machining tools responsive to a third computer program; an indexable chuck adapted to hold said workpiece and rotate said workpiece to bring said workpiece into a selected

position; a third computer program to control the movements of said arm and said chuck, said third computer program adapted to use said second data set to control said chuck and said arm whereby a selected of said tools is brought into contact with a first selected portion of said contours to carry out a machining operation upon said contour and said chuck is operated to bring successive portions of said contours into position to be machined until all contours desired to be machined have been machined, in combination with the other elements and features of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

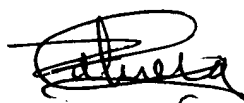
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zoila E. Cabrera whose telephone number is 571-272-3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any

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inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is 703-305-9600.

Zoila Cabrera
Primary Examiner
April 2, 2007



ZOILA CABRERA
PRIMARY EXAMINER
4/2/07